

LEVIT, Sru' Elikovich; MOXHOV, Nikolay Andreyevich; ODUD, Afanasiy
Lukich; GROSUL, Ya.S., otv.red.; IVANOVA, R.S., red.izd-va;
RYLINA, Yu.V., tekhn.red.

[Moldavian S.S.R.] Moldavskaya SSR. Moskva, Izd-vo Akad.nauk
SSSR, 1959. 94 p. (MIRA 12:5)
(Moldavia)

GROSUL, Ya.S., deputat Verkhovnogo Soveta Moldavskoy SSR, doktor
istoricheskikh nauk, prof.

Conservation of nature and efficient utilization of natural
resources of the Moldavian S.S.R.; report at the 8th Session
of the Supreme Soviet of the Moldavian S.S.R. Okhr.prir.Mold.
no.1:9-13 '60.

(MIRA 15:2)

(Moldavia—Conservation of natural resources)

GROSUL, Ya.S., akademik

Achievements of Moldavian scientists and scholars. Vest. AN SSSR 31
no.9:65-72 S '61. (MIRA 14:10)

1. Prezident AN Moldavskoy SSR.
(Moldavia--Agricultural research) (Moldavia--Social science research)

KELDYSH, M.V.; PALLADIN, A.V.; KUPREVICH, V.F.; ABDULLAYEV, Ph.M.; SATPAYEV, K.I.; MUSKHELISHVILI, N.I.; MAMEDALIYEV, Yu.G.; MATULIS, Yu.Yu.; GROSUL, Ya.S.; PLAUDE, K.K.; KARAKHEYEV, K.K.; UMAROV, S.U.; AMBARTSUMYAN, V.A.; BATYROV, Sh.B.; EYKHfel'd, I.G. [Eichfeld, J.]

Comments by presidents. Nauka i zhizn' 28 no.10:2-17 0 '61.

(MIRA 15:1)

1. Prezident Akademii nauk SSSR (for Keldysh). 2. Prezident Akademii nauk Ukrainskoy SSR (for Palladin). 3. Prezident Akademii nauk Belorusskoy SSR (for Kuprevich). 4. Prezident Akademii nauk Uzbekskoy SSR (for Abdullayev). 5. Prezident Akademii nauk Kazakhskoy SSR (for Satpayev). 6. Prezident Akademii nauk Gruzinskoy SSR (for Muskhelishvili). 7. Prezident Akademii nauk Azerbaydzhanskoy SSR (for Mamedaliyev). 8. Prezident Akademii nauk Litovskoy SSR (for Matulis). 9. Prezident Akademii nauk Moldavskoy SSR (for Grosul). 10. Prezident Akademii nauk Latvyskoy SSR (for Plaude). 11. Prezident Akademii nauk Kirgizskoy SSR (for Karakeyev). 12. Prezident Akademii nauk Tadzhikskoy SSR (for Umarov). 13. Prezident Akademii nauk Armyanskoy SSR (for Ambartsumyan). 14. Prezident Akademii nauk Turkmenskoy SSR (for Batyrov). 15. Prezident Akademii nauk Estonskoy SSR (for Eykhfel'd).

(Russia--Economic conditions) (Research)

GROSUL, Ya.S., red.; AGAS, A.T., red.; CHIRBAC, A.I., red.;
AGAS'YEVA, N.A., red.; FAYELASHTEYA, M.G., red.;
KASHUTAIN, ..., red.

[From the history of science and technology; materials]
Iz istorii nauki i tekhniki; materialy. Kishinev, Martia
moldoveniaske, 1963. 187 p. (CIA 17:9)

1. Konferentsiya istorikov yestestvoznaniya i tekhniki
Moldavii. Ist, Kishinev, 1962. 2. Prezident AI Moldavskoy
SSR (for Grosul). 3. Kishinevskiy gosudarstvennyy univer-
sitet (for Agas'yeva).

GROSUL, Ya.S., akademik

Report by the President of the Academy of Sciences of the
Moldavian S.S.S.R. Vest. AN SSSR 34 no. 2:3 F '64. (MIRA 17:5)

1. Prezidnet AN Moldavskoy SSSR; AN Moldavskoy SSR.

GROSUL, Ya.S., akademik

Moldavian scientific research under the new conditions. Vest.
AN SSSR 33 no.9:42-44 S '63. (MIRA 16:9)

1. AN Moldavskoy SSR; prezident AN Moldavskoy SSR.
(Moldavia--Research)

GROVIA, J.

Vibration of airplanes.

p. 119 (Revista Transportarilor. Vol. 3, no. 3, Ser. 1^a Sec. Bucuresti, Romania)

Monthly Index of East European Accessions (REMI) 10. Vol. 7, n. 2,
February 1958

VOSKRESENSKIY, S.S.; GROSVAL'D, M.G.

Reflection of the most recent tectonics in the geomorphology
of the southeastern Sayan piedmont region. Uch.zap.Mosk.un.
no.182:169-175 '56. (MLRA 10:5)
(Sayan Mountain region—Physical geography)

Geological, M.S.

SUBJECT: USSR/Geology 5-2-17/35
AUTHOR: None
TITLE: On the Activities of the Geographic Section of the Moskva Society of Investigators of Nature (O deyatel'nosti geograficheskoy sekti-sii Moskovskogo obshchestva ispytateley prirody)
PERIODICAL: Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskii, 1957, # 2, pp 149-151 (USSR)
ABSTRACT: During the period from December 1956 to January 1957, the following reports were delivered to the Geographical Section of the Society:
"On the Problem of Investigation the Energy of Relief" - by N.P. Matveyev;
"Landslides and Erosion Process" - by S.S. Buts'ko and V.A. Federevskiy;
"Seismic Tectonics and Neotectonics of China" by G.P. Gorshkov, and "New Data on Modern Volcanism in Eastern Tuva" - by M.G. Grosval'd.
ASSOCIATION: Moskva Society of Investigators of Nature.
PRESENTED BY:
SUBMITTED: No date indicated
AVAILABLE: At the Library of Congress.
Card 1/1

10-157-87
AUTHOR:

Grosval'd, M.G.
Grosval'd, M.G.

5-3-35/37

TITLE:

New Data on Recent Volcanism in Eastern Tuva (Novyye dannyye po noveyshemu vulkanizmu vostochnoy Tuvy)

PERIODICAL:

Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskoy, 1957, # 3, p 190 (USSR)

ABSTRACT:

The geologic surveys of 1956 showed that in the upper parts of the rivers Azas and Biy-khem exists a separate, relatively well preserved group of Quaternary volcanos, which numbers 11 large (up to 10 km in diameter) volcanos and at least 6 smaller cones. Lavas of these volcanos effused into the area between the rivers and joined into a blanket covering 1,500 km², forming thereby a structure similar in outward appearance to a plateau of basalts. The thickness of basalt lavas and pyroclastic cones varied from 750 m to a few tens of meters at the periphery of the plateau. On the basis of a series of petrographic and geologic data the age of basalt volcanos in Eastern Tuva is determined as Quaternary.

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Library of Congress

Card 1/1

GROSVAL'D, M.G.; SPIRIDONOV, A.I.

Program and organization of practical studies of students in reading aerial photographs of geomorphological areas. Nauch.dokl.vys. shkoly; geol.-nauki no.4:198-204 ('58) (MIRA 12:6)

1. Moskovskiy universitet, geograficheskiy fakul'tet, kafedra geomorfologii.

(Photographic Interpretation--Study and teaching)

3(5)

SOV/26-59-2-20/53

AUTHOR: Grosval'd, M.G.

TITLE: Stone "Glaciers" of Eastern Sayan (Kamennyye gletchery vostochnogo Sayana)

PERIODICAL: Priroda, 1959, Nr 2, pp 89-91 (USSR)

ABSTRACT: The so-called stone glaciers of Alpine zones of mountains are found at many places on the Earth, but their origin is as yet not quite clear. They are composed of stones and detritus. Some of them are the continuation of normal glaciers and others were formed in mountain cirques from stones and rubble from mountain slopes. The author describes the stone glaciers he found on the slopes of Eastern Sayan. The author thinks that their formation is due to the joint action of frost, erosion and gravity. There is 1 photograph.

ASSOCIATION: Institut geografii AN SSSR (Geographical Institute of the AS USSR)- Moscow.

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AUTHOR: Grosval'd, M. G.

SOV/20-122-3-35/57

TITLE: The Quaternary Volcanoes of the Eastern Tuva Region
(Vostochno-Tuvinskiy rayon chetvertichnykh vulkanov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 5, pp 449-452
(USSR)

ABSTRACT: In the summer of 1956, the Tuvinskaya ekspeditsiya Vsesoyuznogo aerogeologicheskogo tresta (Tuva-Expedition of the All Union Aerial Geological Trust) discovered a fifth group of volcanoes on the southern part of the Sibirskaya platforma (Siberian Platform). The volcanic group named "Vostochno-Tuvinskaya" (East-Tuva), lies between the rivers Biy-Khem (Great Yenisey = Bol'shoy Yenisey) and Khamasyra. Accompanying the author on this expedition were: A. A. Il'ichev, Ye. N. Stankevich and A. K. Uflyand. Pollen samples collected by the author and Ye. N. Stankevich were analysed in the laboratoriya Paleogeografii Moskovskogo gosudarstvennogo universiteta (Laboratory for Paleogeography of the Moscow State University by T. Sviridova, T. Smirnova, Yu. Makhova and L. Pashetkina.

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The 1956 investigations permit revision of earlier conclu-

The Quaternary Volcanoes of the Eastern Tuva Region

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sions about the basalts of the Tuva Region (Refs 1-3). Thus the tuff-lava mountains of Shivit, Derbi-Tayga, Sorug-Chushku-uzu and others are in no way residual table mountains, which were deposited on the surface of the lower basalts; they are shield-type central volcanoes and the basalt cover of the area represents their flows. The lower flows are plateau-type basalts. Figure 1 shows a cross-section of the north side of Shivit, a typical example of the shield volcanoes of the region. According to several dozens of exposures the East-Tuva-complex has the following structure: Two principal units comprise the complex, a lower predominantly pyroclastic unit and an upper unit consisting mainly of lava. There is no third, lower basalt horizon. In the largest volcanoes the thickness of the underlying unit reaches 600 to 700 m. This comprises over 9/10 of the thickness of the entire complex. The units thin rapidly away from the centers of eruption. The variance in thickness (650-750 to 20-30 m) is not the result of denudation; it is primary. The widespread basalt cover of the area partly covers the tuff accumulation of the volcanoes and partly replaces this tuff accumulation. But the basalts are not stratigraphically below the tuffs as earlier thought. The shield volcanoes have the form of flat domes

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or loafs, the basal parts of which have in places flowed together, thus building a short chain of mountains (Fig 2). Their sides are cut into by deep ravines which, due to the resistant basalt, have almost perpendicular walls. The surface morphology of the peaks is complicated by structural steps, roundish troughs and cinder cones. Figure 3 of the East-Tuva region shows 11 shield volcanoes and in addition 4 conical stratovolcanoes and 4 small cinder cones. The northeastward-trending chain of volcanoes corresponds to a young fault zone indicating some relationship between the vulcanism and tectonic movements. The ages of the different volcanic units can be determined by the position of the moraines of the last glaciation. The overlying unit is early Pleistocene. On the basis of pollen analysis, the tuff is Tertiary. The basalts are Pliocene. There are 3 figures and 5 references, 5 of which are Soviet.

ASSOCIATION: Institut geografii Akademii Nauk SSSR (Geographical Institute,
AS USSR)

Card 3/4

GROSVAL'D, M.G.

Recent tectonic movements in the Sayan-Tuva Upland. Biul.MOIP.Otd.geol.
no.2:167-168 Mr-Ap '60. (MIRA 14:4)
(Sayan-Tuva Upland---Geology, Structural)

GROSVAL'D, M.G.; KRENKE, A.N.

Studying present-day glaciation of Franz Josef Land. Izv. AN
SSSR. Ser. geog. no.2:26-36 Mr-Apr '61. (MIRA 14:3)

1. Institut geografii AN SSSR.
(Franz Josef Land—Glaciers)

"APPROVED FOR RELEASE: 08/09/2001

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APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R000617110003-2"

GROSVAL'D, M.G.; DEVIRTS, A.L.; DOBKINA, E.I.

History of the Holocene in Franz Josef Land. Dokl. AN SSSR 141
no.5:1175-1178 D '61. (MIRA 14:12)

1. Institut geografii AN SSSR i Institut geokhimii i analiticheskoy
khimii im. V.I. Vernadskogo AN SSSR. Predstavleno akademikom
A.P. Vinogradovym.

(Franz Josef Land—Paleogeography)

CHERNY, Oleg I., and KOTLYAROV, V. M., Institute of Geography, Academy of Sciences USSR, Moscow [1961 positions] - "Recent changes in the regime of Novaya Zemlya glaciation"

DOLGUZHIN, Leonid D., KONTSEV, Evgeniy A., and KOTLYAROV, V. M., Institute of Geography, Academy of Sciences USSR, Moscow [1961] - "Current changes in the Antarctic ice sheet"

GROGVALD, M. G., and KRENEKE, Anna N., Institute of Geography, Academy of Sciences USSR, Moscow [1961] - "Recent changes and the mass-balance of the glaciers on Franz Joseph Land"

KOVALEV, Pavel Y., Khar'kov State University imeni A. M. Gor'kiy [1960] - "The fluctuations of glaciers in the Caucasus"

MAKAREVICH, K. G., Geography Section, Academy of Sciences Kazakh SSR [1960] - "The regime of glaciers in the Zailiysky Alatau in recent decades"

PAL'GOV, Nikolay N., Head, Geography Section, Academy of Sciences Kazakh SSR, Alma-Ata [1961] - "The relation between glacier retreat and the position of the firm line with special reference to the Zentraluy Tuyuksu Glaciers"

TRENOV, Mikhail V., Professor, Tomsk State University imeni V. V. Kuybyshev [1960] - "On the role of summer snowfalls in the fluctuation of glaciers"

report to be submitted for the Symposium on the Variations of the Regime of Existing Glaciers, IASH (IUGG), Obergurgl, Austria, 10-18 Sep 1962.

GROSVAL'D, M.G.

Sequence of late glacial sediments and the mechanics of decreasing
the last glaciation in Tuva. Biul.MOIP.Otd.geol. 36 no.6:125
N-D '61. (MIRA 15:7)

(Tuva Autonomous Province--Drift)

GROSVAL'D, M.G.

History of the Quaternary in Tuva. Biul. MOIP Otd. geol. 37
no. 1: 157-158 Ja-F '62. (MIRA 15:2)
(Tuva Autonomous Province—Geology, Stratigraphic)

GROSVAL'D, M.G.; PSAREVA, T.V.; AVSYUK, G.A., otv. red.; OGANOVSKIY,
P.N., red.

[Franz Josef Land] Zemlia Frantsa-Iosifa. Moskva. (Its Materialy
gliatsiologicheskikh issledovani). [Ice structure] Struktura ~~1962~~
1962. 99 p. (MIRA 16:2)

1. Akademiya nauk SSSR. Institut geografii.
(Franz Josef Land--Ice)

GROSVAL'D, M.G.

Region of modern glaciation in the central part of Sayan
Mountains. Vest. Mosk. un. Ser. 5: Geog. 17 no.5:62-63
S-O '62. (MIRA 16:4)

(Sayan Mountains--Glaciers)

GROSVAL'D, M.G.

Multiplicity factor of the stages of ancient glaciation in Tuva.
Biul.MOIP.Otd.geol.38no.2:165 Mr-Ap '63.

(Tuva A.S.S.R.—Glacial epoch)

(MIRA 16:5)

GRIGOR'YEVICH, Mikhail Grigor'yevich; KURZAYEV, Z.I., dokl. progr.
nauk, otv. red.

[Development of the relief of the Sayan-Tuva Upland; glaciations, volcanism, recent tectonics] Razvitie rel'efa Sayano-Tuvinskogo nagor'ja; oledoneniia, vulkanizm, neotektonika.
Moskva, Nauka, 1965. 164 p. (MIRA 18:10)

REZANOV, I.A.; NGO TKHYONG SHAN; SHEYNMANN, Yu.M.; RATS, M.V.; KRUG, O.Yu.;
ZYRYANOV, V.N.; RAKCHEYEV, A.D.; YAKOVLEVA, Ye.B.; PETROVA, M.A.;
PETROV, Yu.I.; KUZNETSOV, Ye.A.; YUDINA, V.V.; BARDINA, N.Yu.;
SIMANOVICH, I.M.; ATANSYAN, S.V.; SERGEYEVA, A.M.; PARFENOV, S.I.;
RUTKOVSKI, Ya'sek [Rutkowski, Jacek]; MAKHLINA, M.Kh.; ZVEREV, V.P.;
TERNOVSKAYA, V.T.; SAMOYLOVA, R.B.; YERMAKOVA, K.A.; BYKOVA, N.K.;
MEYYEN, S.V.; BARSKOV, I.S.; IL'INA, L.B.; BABANOVA, L.I.;
DOLITSKAYA, I.V.; GORBACH, L.P.; BUTS'KO, S.S.; TRESKINSKIY, S.A.;
SVOZDETSKIY, N.A.; PRYALVKHINA, A.F.; GROSVALL'D, M.G.; MODEL', Yu.M.;
GORYAINOVA, I.N.; MEDVEDEVA, N.K.; MYALO, Ye.G.; DOBROVOL'SKIY, V.V.;
KHOROSHILOV, P.I.; CHIKISHEV, A.G.

Brief news. Biul. MOIP. Otd. geol. 40 no.3:122-154 My-Je '65.
(MIRA 18:8)

GROSVAL'D, V.G.; SMIRNOVA, A.G.

New device for measuring stresses in metal drawing. Zav.lab. 22
no.3:357-359 '56. (MLRA 10:5)

1.TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Strains and stresses--Measurement)

S/148/61/000/006/004/013
E193/E480

AUTHORS: Grosval'd, V.G. and Svede-Shvets, N.I.

TITLE: Investigation of the specific friction forces and specific pressures in the entire contact area during rolling

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, 1961, No.6, pp.75-86

TEXT: The object of the present investigation was to study the problem stated in the title by a new method and with the aid of a new equipment. The method used by the present authors is a modification of that proposed originally by G.T.Van Rooyen and W.A.Backofen (Ref.2: Journal of the Iron and Steel Institute, VI, v. 186, p.2, 1957) from which it differs in that both the specific (interfacial) pressure and the friction forces acting in the longitudinal and transverse directions are measured simultaneously. This is attained by using inclined pins to transmit the forces acting on the roll surface to dynamometers housed in the specially designed rolls (Fig.1). The positioning of the measuring pins is shown in Fig.2. The longitudinal friction force t_x and the specific pressure p_x are measured by the inclined

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pins 1 and 2; the transverse friction force t_z by the inclined pin 3 and a radially oriented pin 4. The angle ϕ is $30^\circ 52'$ (Fig.1) to give $\tan \phi = 0.75$. The centres of the ends of the pins lie on the median roll diameter. When the axis of the rolled strip coincides with the centres of the pins, contact friction forces in the centre of the strip are measured. By displacing the strip in the lateral direction, the forces near the edge of the strip can be measured. The magnitude of t_x , t_z and p_x is found by resolving the forces acting on the pin in the appropriate directions. The forces acting on the pins are measured by membrane dynamometers with a natural vibration frequency at least 5 times greater than the frequency of the pulses measured, each membrane being equipped with 4 small wire strain gauges. A description of the method of calibrating the dynamometers is given in the paper, as well as a detailed description of a method (developed by the present authors) of graphical determination of t_x , t_z and p_x from the oscillograms obtained during tests. This method takes into account the friction between the pins and their bushings by which the magnitude of friction forces, measured at the neutral point and in Card 2/11

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the zone of forward slip, is particularly affected. The experimental work was carried out on a 2-high laboratory mill "238" at a rolling speed of 0.4 m/sec. By varying the moment at which the strip was fed into the rolls in relation to the position of the measuring pins, forces at various points of the arc of contact could be measured. The measurements were taken during cold rolling of aluminium strip and hot (950°C) rolling of Armco iron strip of various dimensions, the reduction per pass varying between 10 and 15%. All the measurements were taken under conditions of steady rolling and in every case the angle of contact α was smaller than the angle β . Some of the results are reproduced graphically. Those obtained during rolling of Armco iron strip 20 mm thick and 50 mm wide are shown in Fig.5. In this case, the reduction per pass was $\epsilon = 16\%$, the length of the arc of contact $l = 19.5$ mm and the ratio of l to the arithmetical mean of the initial and final thickness of the strip was $l/h_{cp} = 1.06$. The graphs included in Fig.5, show how various forces varied along the arc of contact l , the neutral point being indicated by the vertical line at $x = 0.23 l$. The Card 3/11

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top diagram relates to the pins coinciding with the axis of the strip, the middle and bottom diagrams to the pins at a distance of 12 - 15 and 18 - 20 mm from the strip axis, respectively. In each diagram the upper continuous curve shows the variation of t_x (kg/mm², left-hand upper scale), the lower the variation of t_z (kg/mm², left-hand lower scale); since along the axis of the strip $t_z = 0$, this curve is not included in the top diagram. The broken curves represent the variation of the so-called nominal friction coefficient given by t_x/p_x (right-hand scale). At the bottom of each diagram the variation of the resultant friction force $\bar{t} = \bar{t}_x + \bar{t}_z$ is shown by vectors. The direction of rolling is indicated by an arrow at the bottom of the graph. The distribution of the lateral friction forces t_z at various points of the arc of contact is shown in Fig.6, where the horizontal arrow shows the direction of rolling, the vertical arrow indicates the direction of t_z , and $l = 15.4$ mm is the length of the arc of contact, minimum t_z coinciding with the strip axis. The general conclusion reached was that the specific friction forces ($\bar{t} = \bar{t}_x + \bar{t}_z$), acting on individual points of the contact area, Card 4/11

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E193/E480

form a fan-like set of vectors radiating in all directions from an axial neutral point. The distribution and the magnitude of these vectors depend mainly upon the dimensions of the strip, reduction per pass and the surface conditions of the rolls and of the metal rolled. It was concluded also that in comparison with other methods, the technique used by the present authors provides a reliable tool for establishing which parts of the arc of contact are subject to different kinds of friction and for determining the actual magnitude of the friction coefficient in these parts. The friction coefficient at any point of the zones of forward and backward slip is given by the ratio of the total specific friction force to the specific pressure at this point. The friction coefficient in the sticking zone is given by the ratio of the specific friction force to the resistance of the metal to deformation. Yu.S.Chinarov, Yu.M.Ryb'yev, V.A.Nikitin and I.M.Serikov participated in this work. There are 6 figures, 1 table and 4 references: 3 Soviet and 1 non-Soviet. The reference to an English language publication reads as follows: G.T.Van Rooyen and W.A.Backofen, Journal of the Iron and Steel Institute, VI, v.186, p.2, 1957.
Card 5/ 11

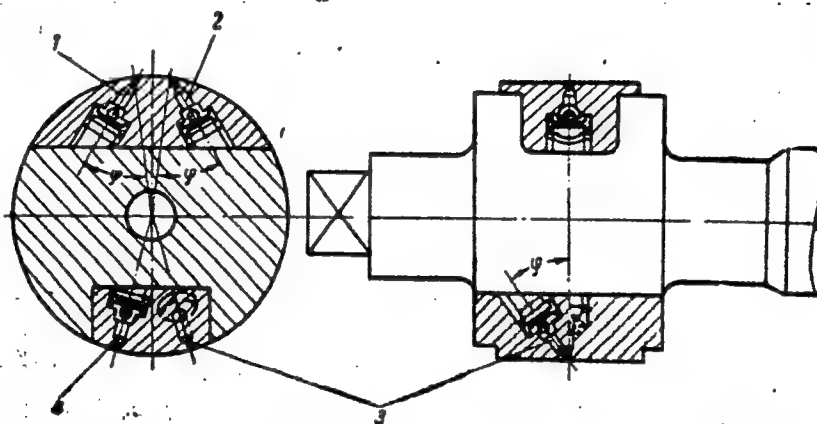
Investigation of the specific ...

S/148/61/000/006/004/013
E193/E480

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut
chernoy metallurgii (Central Research Institute of
Ferrous Metallurgy)

SUBMITTED: June 13, 1960

Fig.1



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GALYATIN, V.M.; KALINSKIY, D.N.; Prinimali uchastiye: KUROCHKIN, I.F.;
DUVANOV, A.I.; SOLOV'YEV, Yu.F.; GERASIMOV, Yu.V.; GROSVAL'D, V.G.;
SHASHKOV, W.N.; VOLKOV, A.A.; ZHILKO, E.I.; MITROPOL'SKIY, Yu.I.;
FEDOSEYEV, S.V.; GONCHAROV, F.I., rabotnik; SHEMETOV, P.Ye.,
rabotnik; CHUPRINA, I.A., rabotnik; DEMIN, P.Ye., rabotnik;
GONCHARENKO, P.V., rabotnik; SIMANYUK, G.N., rabotnik

Investigating power and technological parameters of rolling on the
2350 medium sheet mill. [Sbor. trud.] TSNICHM no.29:138-148
'63. (MIRA 17:4)

1. Sotrudniki TSentral'nogo nauchno-issledovatel'skogo instituta
chernoy metallurgii (for Gerasimov, Grosval'd, Shashkov, Volkov,
Zhilko, Mitropol'skiy, Fedoseyev). 2. Listoprokatnyy tsekh
Magnitogorskogo metallurgicheskogo kombinata (for Goncharov,
Shemetov, Demin, Chuprina, Goncharenko, Simanyuk).

L 64131-65

ENP(k)/ENP(z)/E'A(c)/EWT(d)/EWT(m)/EWF(h)/EWP(b)/EWA(d)/EWP(1)/EWP(v)/

ACCESSION NR: AP5019948 ENP(t) MJW/JD/HT

UR/0133/65/000/008/0753/0753
621.78.001.5

AUTHOR: Grosval'd, V. G.; Nikitin, V. A.

TITLE: Thermomechanical treatment of alloy steel strip

SOURCE: Stal', no. 8, 1965, 753

TOPIC TAGS: alloy steel, steel rolling, alloy steel rolling, thermomechanical treatment, alloy steel thermomechanical treatment

ABSTRACT: Strips of 40KhN5S and 42Kh2GSNM steel were subjected to low-temperature thermomechanical treatment under laboratory conditions. The strips were rolled in a two-high 400 mill or a four-high 175/425 mill to a thickness of 1.5—2 mm and a width of 7—100 mm, with a total reduction of 90% and a per pass reduction of 10—55%. The strips were reheated after each pass in a molten salt bath to 550C. The mill rolls were preheated to 180C. The thermomechanically treated strips of 40KhN5S and 42Kh2GSNM steel had a tensile strength of 2620 and 2400 Mn/m², a yield strength of 2350 and 2200 Mn/m², an elongation of 4 and 5%, and a reduction of area of 20 and 12—20%, respectively.

ASSOCIATION: none
Card 1/2

[WW]

I. 64131-65

ACCESSION NR: AP5019948

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4070

Card

KC
2/2

BOGOMOL, B.A.; MALIN, A.P.; MIREFONOV, V.V.; NIKOLAYEV, A.B.; SHCHERBACH, V.M.;
LOZENOV, A.A.; GROSVAL'D, V.G.; AKSENOV, G.I.; ANTONOV, V.G.;
TIKHONOV, G.F.

Experimental powder rolling on an industrial-type mill. Sbor.
trud. TSNIICM no.43.51-59 '65. (MIRA 18-10)

GROSVOLD, V.G.; LEE, P.A.; MONARHOVA, V.I.; KOSOV, S.I.;
MONARHOVA, V.I.; KOSOV, S.I.; KOSOV, S.I.

New developments in research, 1970-1975. 100 p.
(1970-1975)

L 1662-66 FWT(d)/EWP(e)/ENT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(s)/EWP(b)/
EWP(I)/EWA(c) JD/HW

ACCESSION NR: AT5022888

UR/2776/65/000/043/0033/0039

AUTHOR: Borok, B. A.; Malin, A. P.; Markalov, V. V.; Andreyev, Y. S.; Kutykina, V. M.; Loginov, A. A.; Grosval'd, V. G.; Aksenov, G. I.

TITLE: Experience in rolling powders in an industrial-type rolling mill

SOURCE: Moscow, Tsentral'nyy nauchno-issledovatel'skiy institut chernov metal-
lurgii. Sbornik trudov, no. 43, 1965. Poroshkovaya metallurgiya (Powder metal-
lurgy), 53-59

TOPIC TAGS: rolling mill, powder metallurgy, metal powder, powder metal rolling

ABSTRACT: The authors describe an industrial two-high powder-rolling mill with roll diameters 600 and 900 mm, based on a standard rolling mill originally built in 1940, and equipped with special powder-feeding bunkers. The mill consists of an open-top steel housing with variable positioning of rolls -- they can be aligned either horizontally or at angles of 22.5°, 45°, and 60° (Figs. 1, 2). Its main drive is powered by a DC 237.4 kw (330 HP) 40-800 RPM motor. It has been used for the experimental rolling of strips from the powders of iron, OKh18N9 stainless steel, molybdenum, and titanium. These experiments demonstrated the

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ACCESSION NR: AT5022888

mill's suitability for organizing the industrial production of poreless strips from the powders of different metals and alloys. Such strips, 0.8-1.0 mm thick, display physical properties that are not inferior to those of strips produced by rolling ingot metal. This strip thickness is in complete agreement with the basic equation of rolling, which implies that strip thickness is a function of roll diameter:

$$\gamma_p = \frac{\gamma_s}{\tau} \left[1 + \frac{D}{\delta} + \frac{\alpha^2}{2} \right] \quad (1)$$

where γ_p and γ_s are the densities of powder (bulk weight) and strip, respectively, g/cm³; D is the roll diameter, mm; δ is the thickness of rolled strip, mm; α is the angle of reach, deg; and τ is the coefficient of reduction of the powder during rolling. Hence this basic equation applies not only for laboratory rolling mills but also for industrial rolling mills and can be used in designing the latter. Before the rolling of metal powders can be industrially introduced, however, these three problems must be solved: lateral restriction of the zone of deformation of powder in the rolls; continuous, uniform supply of powder to the feeder; and con-

Card

2/15

L 1662-66

ACCESSION NR: AT5022888

tinuous sintering of the strip. Orig. art. has: 2 figures, 3 tables, 5 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 02

SUB CODE: MM, MC

NO REF SOV: 010

OTHER: 005

Card 3/83

GROSSVAL'D, Ye.G.; TAVASTSHERNA, K.S.

Use of photoelasticity methods in studying models of the main
mirror of the large telescope. Izv. GAO 24 no.1:114-118 '64.
(MIRA 18:3)

Grozvaidis, Irena : A., 1964.

[From pyramids to reinforced concrete. No, izuminiem līdz
dzelzsbetonam. Rīga, Latvijas PSR Zinātņu akad. izd.,
1964. 99 p. [In Latvian] (RINA 18:1)

RUMANIA/Chemical Technology. Chemical Products
and Their Uses. Part I. Water Treatment.
Sewage Waters.

H

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 50766

Author : Grosz, E., Straus, E., Giudareanu, S.

Inst : -

Title : Chlorinators for Microhydrostations.

Orig Pub : Igiena, 1957, 6, No 4, 369-373

Abstract : Given are drawings for two types of auto-
matic chlorinators for chlorination of
free-flowing water. -- N. Turkevitch

Card : 1/1

6407. Explanation of absence of Pasteur effect in Ehrlich ascites cancer cells. G. Acs, T. Garzó, G. Grósz, J. Molnár, O. Stephaneck and F. B. Straub *Acta physiol. Acad. Sci. hung.*, 1955, 8, 269-278 (Chem. Inst., Med. Univ., Budapest, Hungary).—Ehrlich cancer cells take up inorg. phosphate and form esters in large quantities under aerobic conditions in the absence of 5×10^{-4} moniodoacetic acid and glucose. Ester formation does not take place anaerobically. The aerobically formed ester is hexose diphosphate. Cell-, cell-fragment- and nuclei-free homogenates of the cancer cells synthesise by phosphorylation hexosediphosphate under aerobic conditions without addition of NaF, hexokinase, or ATP. Apyrase inhibits phosphorylation by homogenates. It is assumed that the reaction is maintained by a supply of ATP from the mitochondria. Mitochondria of the Ehrlich cancer cells differ from other cells in that they have a strong hexokinase activity and a weak ATP-ase activity. It is concluded that the aerobic glycolysis of the cancer cells, the absence of the Pasteur effect, is due to their possession of an aerobic phosphorylating mechanism based on the peculiar distribution of ATP-ase and hexokinase activities in their mitochondria. (German)

A. B. L. BAZNÁK.

ROMANIA

ILEA, T., Professor; BULLA, A., MD; GROSZ, G., Lecturer; CORCI, V.,
MD; ENACHESCU, D., MD; HUCZAR, T., MD.

Bucharest, Igiena, Vol XII, No 1, Jan-Feb 63, pp 1-10.

"Methodological Bases of Public Health."

(6)

ROMANIA

GROSZ, Geza, Lecturer; STROHL, Ivan, MD.

Section of Public Health, Institute of Medicine and Pharmacy,
Bucharest. (Catedra de sanatate publica, I.M.F.) (head of
Section: Professor T. Ilea.) - (for all)

Bucharest, Viata Medicala, No 7, 1 Apr 63, pp 461-468.

"Problems of Ambulatory Medical Assistance for the Urban
Population."

(2)

R/006/62/010/011/001/001
A065/A126

AUTHOR: Grosz, Ivan, Chief Engineer (Bucharest)
TITLE: The temperature control of thrust bearings
PERIODICAL: Energetica, no. 11, 1962, 483 - 486

TEXT: After a general description of the exploitation control of turbine bearings and measuring of the temperature in the bearing shell, the author presents the results of some measurements accomplished with thermocouples in the bronze shells of thrust bearings. The experiments were conducted in January 1961 at the TA 1 TC "Filimon Sirbu", and in May - June 1961 at the TA1, TA 4 TC Arad, by using Fe.-Const. thermocouples of 0.5 mm, located at 1 - 1.5 mm from the operating surface, in the immediate vicinity of the shell's exit margin. The purpose of the experiments was the determination of the temperature variation of lubricant and shells, between idling and full-load operation. Between these two limits, the temperature of the lubricant increased by 1 - 2°C, while that of the shells did by 15 - 25°C. The temperature control of the shells may have the following applications. 1) Checking of the behaviour of thrust bearings in current application. 2) Checking of the operation of thrust bearings

Card 1/2

The temperature control of thrust bearings

R/006/62/010/011/001/001
A065/A126

during thrust variation experiments. 3) Checking of the distribution of the thrust force on the shells. 4) Realization of a protection system and of a damage prevention system for thrust bearings, protecting thus the turbine itself. There are 9 figures.

ASSOCIATION: Intreprinderea pentru raționalizări și modernizări energetice
"IRME" (Enterprise for power rationalization and modernization)

Card 2/2

ILIESCU, Teodor, ing. (Bucuresti); GROSZ, Ivan, ing. (Bucuresti)

Working tests with worsened vacuum of the TA 1 steam turbine of 2500 kv. in Arad. Energetica Rum 10 no.3:116-120 Mr '62.

1. Seful serviciului de rationalizari termice din Intreprinderea pentru rationalizari si modernizari energetice (for Iliescu).
2. Inginer principal la Intreprinderea pentru rationalizari si modernizari energetice (for Grosz).

GROSZ, Ivan, ing. (Bucuresti)

Dew point and the corrosion of the boiler rear regeneration surfaces. Energetica Rum 10 no.9:383-388 S '62.

1. I.R.M.E.

GROSZ, Istvan, dr.

Industrial intoxications and the eyes. Term tud kozl 6 no.1:37-38
Ja '62.

(OCCUPATIONAL DISEASES) (EYE)

GROSZ, Ivan, ing. principal (Bucuresti)

Temperature control of axial bearings. Energetica Rum 10
no. 11:483-486 N '62.

1. Intreprinderea pentru rationalizari si modernizari energetice.

ILIESCU, T., ing.; GROSZ, I., ing.

Tests of worsened vacuum functioning of a turbine of 2000 kw.
Energetica Rum 9 no.8:312-315 Ag '61.

1. Intreprinderea pentru rationalizari si modernizari energetice.

GROSZ, I., ing.; IORGULESCU, Gr., ing.

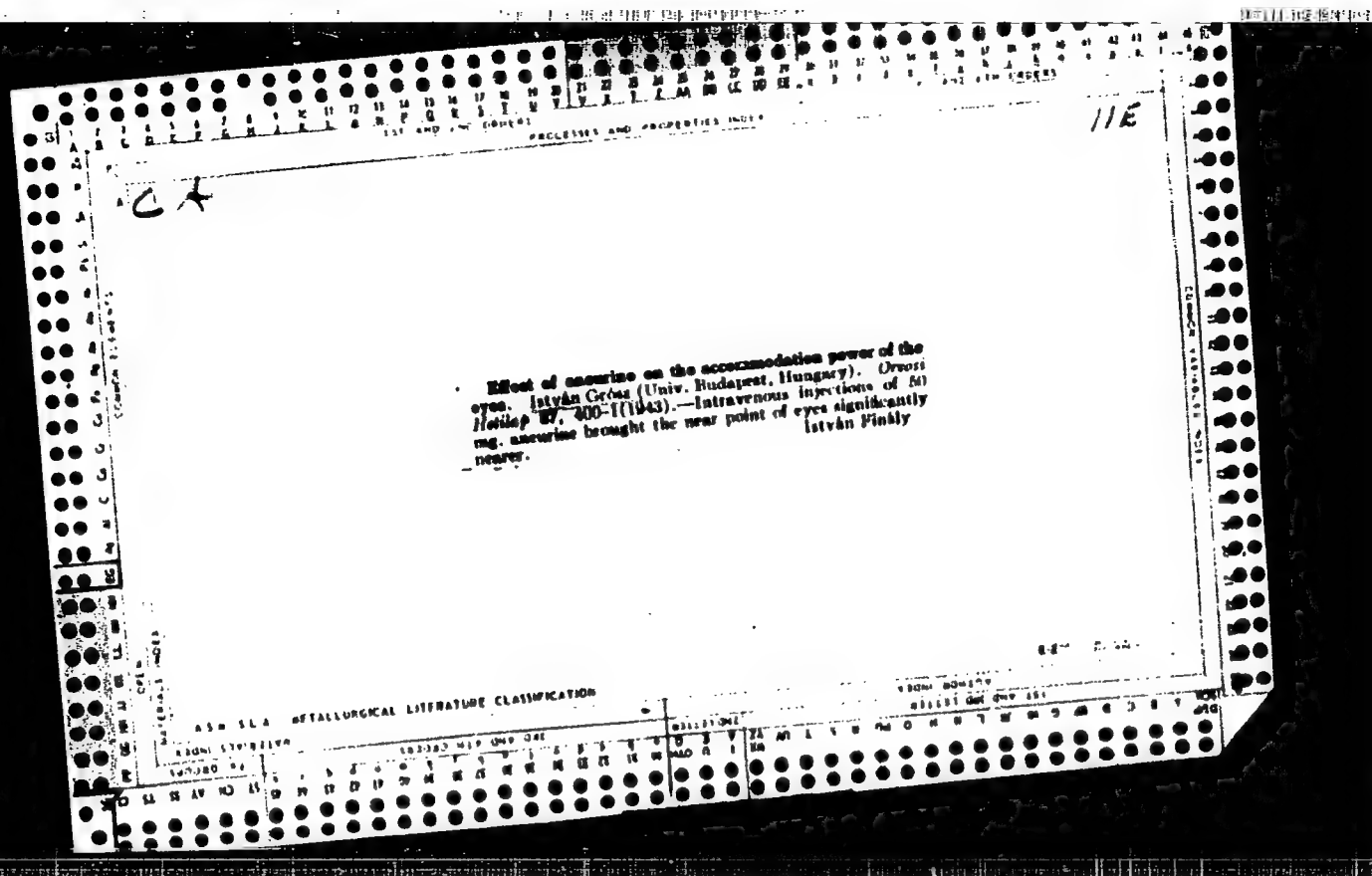
Crack defectoscopy by fluorescence. Energetica Rum 9 no.9:
381-384 S '61.

1. Intreprinderea pentru rationalizari si modernizari energetice
(for Grosz). 2. I.E.C. Bucuresti (for Iorgulescu).

ROKA, Pal; FOLDESI, Erno (Gyor); RIEPERGER, Laszlo; SEY, Dezso
(Gyor); BALAZS, Jozsef (Debrecen); GROSZ, Istvan (Szekesfehervar);
DANI, Janos (Szeged); BODOGH, Istvan; DALCOSA, Gabor, dr.;
LAZAR, Laszlo; BAKOS, Karoly, fomernok (Budapest); FABIAN,
Laszlo, nyugdijas mernok; SZEP, Jozsef

Report on the Executive Committee session of the Scientific
Association of the Wood Industry in Gyor. Faipar 14 no.6:
161-163 Je '64.

1. President, Scientific Association of the Wood Industry
(for Roka).
2. Deputy Head, Wood industry Research Institute (for Dalocsa).
3. Head, Committee on Education, Scientific Association of
the Wood Industry (for Lazar).



GPOSZ, I. 1948

"Extract of Filix Mas and Castor Oil."

Orvosok Lapja 1948, 4/47(1511)

Abst: Exc. Med. 11, Vol. 11, No. 5, p. 654

C.A.

Preparation of eye drops. 1. Atropine sulfate. György Kédesy, István Góza, and Angela Szepessy (Univ., Budapest, Hung.). *J. Pharm. Hyg.* 23, 22-8 (1940). --Simple aq. atropine sulfate soln. produces a stinging sensation when applied to the eyes. No such effects were observed when applying a 1% aq. soln. of atropine sulfate adjusted to pH 7-9 by means of a modified Palitzsch boric acid-borax buffer (cf. C.A. 11, 1014). No differences could be observed in the effects of atropine base and atropine ion; the ratios of their concn. seemed to change during storage. Aq. atropine sulfate solns. stored at pH 8-9 without buffers showed hydrolytic decompn. to tropine and *dl* tropicic acid. Storage expts. for 25 days showed that the best storability was obtained with a soln. buffered to pH 7.0, prepd. from 0.4 ml. 0.2 mol. soln. of boric acid, 6 ml. 0.05 mol. borax soln., 0.2 g. NaCl, and 1.0 g. atropine sulfate. For the preservation of such solns. zeephrol in a diln. 1:20,000 seemed to be most suitable. 33 references. István Finály

GROSZ, I.

Physiotherapy in ocular diseases. Szemeszet No. 2, 1950.
p. 124-8

1. First Eye Clinic (Director: Dr. Guztav Horay), Budapest University.

CIML 19, 5, Nov., 1950

GROSZ, I.; KEDVESSY, G.

Modern ocular salves with special reference to their base.

Szemészet 88 no. 4:212-216 Dec. 1951.

(CJML 21:3)

1. Doctors.

GROSZ, Istvan, Dr.

~~Acute visual catastrophes.~~ Orv. hetil. 99 no.31:1058-1062 3 Aug 58.

1. A Nehadsereg Eggeszsegugyi Szolgalatanak kozlemenye.

(EYE DISEASES

acute visual catastrophes, diag. & ther. (Hun))

GROSZ, Istvan

Ophthalmologic relationships in the new *Formulae Normales*.
Szemeszet 96 no.4:188-190 D '59.

1. A Magyar Nephadsereg Egesszegugyi Szolgalatanak kozlemenye.
(OPHTHALMOLOGY)
(FORMULARIES)

GROSZ, Istvan

Clinical experience with hydrocortisone eye salve. Szemeszet 97
no.3:162-167 S '60.

1. A Magyar Nephadsereg En. Szolgalatanak kozlemenye
(OPHTHALMOLOGY ther.)
(HYDROCORTISONE ther.)

GYENES, Vilmos, dr.; GROSZ, Istvan, dr.

Typical case of mandibulofacial dysostosis. Orv.hetil. 101 no.40:
1424-1425 2 0 '60.

1. Magyar Nephadsereg Egészségügyi Szolgálat.
(MANDIBULOFACIAL DYSOSTOSIS case reports)

GROSZ, Istvan, dr.

Radiation and eye damage. Term tud kozl 5 no.5:231-232 My '61.

GROSZ, Istvan

Ophthalmological observations on a new Hungarian synthetic anti-malarial drug. Szemeszet 99 no.1:21-26 Mr '62.

1. Fov. Tanacs Janos Korhaz es Rend. Int. (igazgato: Tako Jossef)
szemeszeti osztalyanak (o. v. foorvos: Gross Istvan kandidatus)
kozlemenye.

(ANTIMALARIALS pharmacol)
(EYE pharmacol)

GROSZ, Istvan, dr.

Changes in the natural history of eye diseases. Orv. hetil. 102 no. 50:
2371-2373 10 D '61.

1. Fov. Janos Korhaz, Szemesztaly.

(OPHTHALMOLOGY)

GROSZ, Istvan, dr., Gyorvos

Biochemistry of sight. Term tud kozl 6 no.5:230-231 My 1962.

GROSZ, Istvan

New methods for the acceleration of epithelial regeneration of the cornea. Klin. oczna 32 nc.4:407-410 '62.

1. Z Oddzialu Ocznego Ordynator: doc. dr med. I. Gross Szpitala
Miejskiego Janosa w Budapeszcie. Dyrektor: dr J. Takc.
(REGENERATION) (CORNEA) (WOUND HEALING)

GROSZ, Istvan, dr.

Present state of fighting blindness. Term tud kozl 6 no.11:517 N '62.

GROSZ, Istvan, az orvostudományok kandidátusa, főorvos

"Ophthalmology" by Boros, Kettesy, Kukan, Reviewed by
Istvan Grosz. Magy tud 70 no.12:850-851 D'63.

1. Janos Korhaz.

GROSZ, Istvan, dr., szemeszfoorvos, az orvostudomanyok kandidatusa

Drugs and the eye. Term tud kozl 8 no.10:474-475 0 '64.

GROSZ, Istvan

Emetine therapy of herpes zoster ophthalmicus. Klin. oczna
34 no.2:207-210 '64.

1. Z Oddzialu ocznego Szpitala Miejskiego im. Janosa w
Budapeszcie.

GROSZ, Istvan

Chloroquine toxicology. (Eye manifestations). Szemesztet 101
no.2:86-89 Je'64

1. Fovarosí Janos Korhaz es Rendelointozet (Igazgato: Tako,
Jozsef, dr.) Szemesze'i osztalyanak (Osztalyvezeto: Grosz,
Istvan , kandidatus) kozlemenye.

GROSZ, Istvan, dr.

Eye complications in smallpox vaccination. Orv.hetil. 105 no.4:
171 26 J '64.

1. Fővárosi Janos-korhaz, Szemosztaly.

*

GROSZ, Istvan, dr.; HANISCH, Jozsef, dr.

Significance of Trilen anesthesia in eye surgery in children.
Orv. hetil. 106 no.40:1901-1902 3 0 '65.

1. Fovarosí Janos Korhaz, Szemeszeti Osztaly (foorvos: Grosz, Istvan, dr.).

L 45471-66

ACC NR: AT6033354

SOURCE CODE: HU/2505/65/026/01-/0131/0141

AUTHOR: Karmos, G.; Grastyán, E.; Losonczy, Hajna; Vereczkey, L.; Grosz, J. 21

ORG: Institute of Physiology, Medical University of Pecs (Pecsi Orvostudományi Egyetem, Elettani Intézet)

TITLE: Possible role of the hippocampus in the organization of the orientation reaction
This paper presented at the symposium of the Hungarian Physiological Society held in Budapest from 2 to 3 July 1963/

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, no. 1-2, 1965, 131-140

TOPIC TAGS: electrophysiology, brain, cat, neurophysiology

Behavioral

ABSTRACT:
and electrophysiological findings have been presented concerning the function of the hippocampus. It was found in unrestrained cats with implanted electrodes that, in contrast to the generally accepted view, hippocampal arousal is characterized by desynchronization similar to that of the neocortex and not by theta waves. An analysis of the relationship between the orientation reaction and hippocampal theta activity revealed that unfamiliar stimuli in a familiar environment did not elicit an orientation reaction. The latter could be elicited only by stimuli having a conditional signal property. The hippocampal theta rhythm was found to be a concomitant of the orientation reaction. An intensification of the latter was observed after hippocampal lesions. A multiple-choice delayed reflex could not be elaborated in cats with hippocampal lesions while the reflex elaborated before the lesion was impaired only temporarily. The possible function of the hippocampus and the significance of the theta rhythm have been discussed. The authors thank the "Muszeripari Művek", Esztergom, Hungary for the loan of the frequency analyzer.

Orig. art. has: 10 figures. [Orig. art. in Eng.] [JPRS]

SUB CODE: f06 / SUBM DATE: none / ORIG REF: 004 / SOV REF: 001 / OTH REF: 010

Card 1/1

0220 1376

KARMOS, G.; GRASYAN, E.; LOSONCZY, Hajna; VERECZEKY, L.; GROSZ, J.

The possible role of the hippocampus in the organization of the orientation reaction. Acta physiol. acad. sci. Hung. 26 no.1: 131-141 '65

1. Institute of Physiology, University Medical School, Pecs.

GROSZ, Z.; BAGDY, D.; BOLONI, E.

Cystine in ophthalmic therapy. Orv. hetil. 93 no. 26:762-763 29
June 1952. (CML 23:3)

1. Doctors. 2. People's Army Sanitation Service and Pharmaceutical
Industry Research Institute.

GROSZBERG, Judit, dr.,; KORANYI, Gyorgy, dr.

Observations on 2-3 year-old children following hepatitis. Orv.
hetil. 96 no.25:696-698 19 June 55

1. A Budapesti Szabolcs utcai Állami kórház (igazgató: Dolenschall
Frigyes dr. kandidatus) Gyermekosztályának (főorvos: Steiner
Belax dr. közleménye.

(HEPATITIS, in infant and child,
sequelae)

E-2

POLAND / Analytical Chemistry--Analysis of inorganic substances.

Abs Jour : Referat Zhur--Khimiya, No. 11, 1959, 38293

Author : Hubicki, W.; and Groszek, H.
Inst : M. Curie-Sklodowska University
Title : Potentiometric Titration of AgNO_3 Solutions in Divers Liquid With the Aid of Na_2S .

Orig Pub : Ann Univ M. Curie-Sklodowska, (1956) (1958),
A411, 23-28 (in German with Polish and Russian summaries)

Abstract : The authors have developed a method for the potentiometric titration of Ag^+ in Divers Liquid ($\text{NH}_4\text{NO}_3 \cdot 2\text{NH}_3$) (DL) with Na_2S dissolved in DL. The titration is carried out in a special thermostated chamber at 0°C under an atmosphere of NH_3 with mechanical stirring (using a magnetic

Card 1/2

POLAND / Analytical Chemistry--Analysis of inorganic substances.

Abs Jour : Referat Zhur--Khimiya, No. 11, 1959, 38293

E-2

stirrer) and using a silver or silver fluoride electrode (a silver foil covered by a film of AgF and immersed in a saturated solution of AgF and NaF in DL). The application of a k.e. [calomel electrode] is not feasible because of the disproportionation of Hg_2Cl_2 under the action of NH_3 . When a 0.0143 gm sample of AgNO_3 dissolved in 20 ml DL is titrated by the above procedure, the potential jump at the equivalence point corresponding to the formation of Ag_2S is 400 mv. The error in the determination is less than 1.8%. -- A. Nemodruk

Card 2/2

GROSZEK JANINA

GOLDSCHMIED, Aleksander; KANSKI, Marek; LYSANOWICZ, Zofia; GROSZEK, Janina;
ROZEK, Stanisława

Investigations on the glyceimic thrust index in peptic ulcer. Ann.
Univ. Lublin; sec.D 7 no.11-21:331-340 1952.

1. Z I Kliniki Chorob Wewnętrznych Akademii Medycznej w Lublinie.
Kierownik: prof. dr Aleksander Goldschmied.

(BLOOD SUGAR, in various diseases,

peptic ulcer, difference of sugar during insulin
hypoglycemia & after inject. of glucose)

(PEPTIC ULCER, blood in,

sugar, difference of sugar during insulin hypoglycemia
& after inject. of glucose)

Za skron...
Warszawa, 7. 10. 1953. Ministerium...
Contrôle... 1951... 10. 10. 1953. [At the...]

30: Monthly List of East European Acquisitions, Library of Congress, Vol. 3, No. 10
October 1953. Unclassified

GROSZKOWSKI, J.

High vacuum clean metal surface pump. Bul Ac Pol tech 11 no.4:
189-193 '63.

1. Department of Electronics, Institute of Fundamental Technical
Problems, Polish Academy of Sciences, Warsaw.

GROSZKOWSKI, J.

Gas desorption from the ionization gauge and the pressure in
high vacuum systems of small volume. Bul. Ac. Pol. tech. 11.
no. 5:263-267 '63.

GROSZKOWSKI, J., prof. dr inz.

Creative invention of the researcher influences the development of science and technology. Przegl techn 85 no.51:1,3 20 D '64.

1. Chairman, Council of Committee of Science and Technology, Warsaw.

621 385.13 : 621.3011.1

6026. Glow-discharge tube as an inductance. (GOLIKOV, I. I. Kvant. Telemekh. 11 (No. 1) 18 (1968) In Polish. The dynamic volt-ampere characteristic of a glow-discharge tube operating in the "normal" range has the shape of a loop. The author considers such a tube as a non-linear inductance, and finds its equivalent value when a pure sinusoidal voltage is applied to its terminals. Curves show the inductance of a small neon tube as function of the polarizing d.c. voltage and inductance against frequency for the same tube. The glow-discharge tube is analyzed as an inductance connected to an oscillation generator (with negative resistance). The investigations are based on the imaginary power relations given by the integral (ohm). The results obtained are in full agreement with the non-linear theory given by the author in his previous paper [Aber. 4074 (1969)].

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

621 385.13 : 621.3011.1

621 385.13 : 621.3011.1

1949, J.

SA

3940. On the optimum operating conditions of a resistance type vacuum gauge. Groszkowski, J. Kwart. Telekomun., 12, 1-11 (July, 1949) in Polish. — Considers the optimum operating conditions of the resistance type conductivity vacuum gauge in the constant current circuit. Having established the principal vacuum gauge equation, i.e. "the voltage across the resistance of the vacuum gauge head v , the vacuum pressure," the author finds the expression for the sensitivity of the vacuum gauge as well as the conditions for the max. sensitivity as a function of the resistance wire material and wire diameter for the different pressure ranges.

13 64
0

62

13 64

CM

PRODUCED IN U.S.A.

1

McLeod-type alloy-filled vacuum gage. Janusz Geraszkowski (Tech. Univ., Warsaw). *Nature* 199, 896-7 (1960).—An easily fusible alloy composed of Pb 27, Sn 13, Bi 80, and Cd 10% with a solidification temp. of about 70° and a sp. gr. of 9.6 is used in a McLeod-type gage to avoid the disadvantages of the use of Hg or nonvolatile org. fluids. The gage can be operated at 100°. Its construction differs from that of the common McLeod Hg gage. The alloy reservoir is made of stainless steel and the other parts are of glass. The whole gage is immersed in an oil or water bath during operation. H. F. B.

GROSZKOWSKI, JANUSZ

Groszkowski, Janusz Generacja i stabilizacja czestotliwosci. Wym.
2. popr. Warszawa, Panstwowe Wydawn. Techniczne, 1950. 449 p.
(Biblioteka wiedzy telekomunikacyjnej) (Generation and stabilization
of frequency. Bibl.)

SO: Monthly list of East European Accessions, LC, Vol. 3, No. 1, Jan. 1954,
Uncl.

GROSZKOWSKI, J.

Electrical Engineering Abst.
Vol. 57 No. 676
Apr. 1954
Electric Waves and Oscillations

621.373.421
1617. Negative feedback oscillators of high frequency stability. J. Groszkowski. *Arch. elektrotech. [Warsaw]* 1, No. 1, 3-38 (1952) in Polish with English summary, 6 pp.
In the non-linear theory of oscillations, developed previously by the author [*Proc. IRE*, 21, 958-81 (July, 1933); 22, 145-51 (Feb., 1934)], the relative drift of oscillator frequency was shown to be proportional to the series whose terms are the products of the square of harmonic content and of the function ϕ of the harmonic order and of circuit parameters. On this basis, two methods of improving the frequency stability by means of the negative feedback are discussed. In the first method, the harmonic content is reduced by the increase of applied negative feedback. The second method (based on the compensation of imaginary power of harmonics) consists in splitting the function ϕ into the term A depending only on circuit parameters and the term depending only on the harmonic order. The harmonic content is assumed to be a function of the supply voltage V and the condition of frequency stability (i.e. the derivative of frequency drift with respect to V must vanish) is fulfilled for $A = 0$, independently of the existence of harmonic spectrum and its variations, caused by the changes of V . It is shown that the above conditions are satisfied by the generating system with inductive coupling, and with additional negative feedback obtained by a resonant circuit tuned to the generated frequency determined by the main oscillating circuit. The additional circuit should have smaller dynamic resistance and smaller magnification factor. (See also *Abstr* 260 (1954)) H. Sygda

8-31-54 JH

GROSZKOWSKI, Janusz, professor, doktor, inzhener; BULAT, V.L., [translator]; SHEMBEL', B.K., redaktor; TELESNIN, N.L., redaktor; NIKI-FOROV, A.N., tekhnicheskii redaktor

[Generation of high-frequency oscillations and the stabilization of frequency. Translated from the Polish] Generirovanie vysokochastotnykh kolebani i stabilizatsia chastoty. Per. s pol'skogo B.L.Bulata. Pod red. B.K.Shembelia. Moskva, Izd-vo inostrannoi lit-ry, 1953. 363 p.

(MLRA 8:7)

2. (Oscillators, Electron-tube)

GEOSZKOWSKI, J.

5160. The inductance and negative resistance of a device with hysteretic loop characteristic. J. GABRYKOWSKI, Arch. elektrotech. [Warsaw] 3, No. 1, 1953, 1-10 (1953) In Polish. Summary (13 pp.) in English.

The theory of the imaginary power balance [Akh., 1917 (1954)] is applied to the analysis of the steady-state operation of a relaxation oscillating circuit consisting of a device with hysteresis loop (current-voltage) characteristic (e.g. gas-discharge tube), and of an RC-circuit in parallel. The expressions for the series of waveforms, the harmonic content, and periods of fundamental and for the order of the equivalent "highest" harmonic existing in the generator are related to this area of the loop. It is found that a negative nonlinear loopless resistance exciting the RC-systems identically to a device having hysteresis loop, must have a certain series inductance L_0 (independent of frequency and different from the fundamental frequency inductance) which is proportional to the capacitance C , increases with 4th power of the voltage hysteresis loop width and decreases with the square root of the loop area. L_0 may be also expressed as proportional to the square of maximum value of the negative resistance of the device, this being equal to the ratio of loop width and loop height.

GROSZKOWSKI, J.

"Heterogeneity silicon surfaces from the point of view of detection efficiency."
p. 330. (ARCHIWUM ELEKTROTECHNIKI Vol. 2, No. 3/4. 1953. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4.
April 1955. Uncl.

GROSZEKOWSKI, J.

"The dependence of some parameters of a germanium transistor upon temperature."
p. 333. (ARCHIWUM ELEKTROTECHNIKI Vol. 2, No. 3/4. 1953. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4. No. 4.
April 1955. Uncl.

GROSZKOWSKI, J.

"Oscillators With Negative Feedback and High Sensitivity Frequency Response" Byul. Polsk. AN Otd. 4, No 1-2, 1953, 39-43

Design of a negative feedback oscillator with improved frequency response is presented. The design is based on author's theory of a harmonics. An oscillatory circuit with a positive or negative feedback and a frequency free of harmonics and independent of feeding voltage variations is proved to be realizable. Agreement of theoretical and experimental results was achieved on oscillators 1 to 100 kc frequencies. (RZhFiz, No 11, 1955)

GROSZKOWSKI, J.

Groszkowski J. Arc „Inductance” and Dynatron „Capacitance”.

„Indukcyjności” i „pojemności” dynatronu”. Archiwum MN
Elektrotechniki. (PAN). No. 1, 1954, pp. 3-30, 5 figs.

The author sets out to demonstrate that differentiation between cause and effect in negative resistance — the assumption, that is, that there exists in arc-type resistances a series inductance (where current is the „cause” and voltage the „effect”) and in dynatron-type resistances a parallel capacitance (where voltage is the „cause” and current the „effect”) — is not redundant for the substantiation of a number of relations affecting the behaviour of these systems. The author introduces, in that part of this work which applies to transient states in systems consisting of a non-linear negative resistance and linear positive resistance, expressions for the duration of current (of voltage) „jump” while passing from a state of unstable to one of stable equilibrium, and proves that the infinitesimal inductance (in the case of arc-type resistances) or capacitances (in the case of dynatron-type resistances) settled as they are in the lead-in, terminals, etc., are adequate for the quantitative explanation of transient phenomena, without any need for the introduction into the non-linear resistances of energy-storing elements. He further explains, in dealing with stable states of oscillations in systems consisting of a non-linear negative resistance and a resonant circuit, the apparent occurrence, in the arc, of inductance and, on the dynatron, of capacitance resulting from phase shift occurring as between the fundamental processes of current and voltage; phase shift is the result of de-

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